

REMARKS

The Office Action mailed November 9, 2008 has been carefully considered and the following response prepared. Claims 4, 5, 7, and 10-31 are pending in the application. Claims 13-20 are withdrawn from consideration. Claims 4, 5, 7 and 21-31 were examined in the present Office Action.

REQUEST FOR WITHDRAWAL OF FINAL DESIGNATION OF OFFICE ACTION

Applicants respectfully request withdrawal of the final designation of the present Office Action. In the present Office Action the Examiner withdrew all rejections from the previous Office Action, and newly rejected the claims under 35 USC 103 as obvious in view of the newly cited combination of references Senaratna et al. (WO 99/25191) and Bussler et al. (U.S. Patent 5,710,100). Senaratna et al. was used to reject the claims in the previous Office action, but Bussler et al. is newly cited in the present Office Action. The new rejection was not necessitated by Applicants' amendment of the claims, nor was the rejection based on information submitted in an Information Disclosure Statement filed after mailing of the previous Office Action. The designation of the present Office Action as final is therefore premature and should be withdrawn in accordance with MPEP 706.07(a)

REJECTION UNDER 35 USC 103

At page 3 of the Office Action, the Examiner rejected claims 4-12, 21-25, and 27-31 under 35 USC 103 as unpatentable over Senaratna et al. (WO 99/25191) in view of Bussler et al. (U.S. Patent 5,710,100). The Examiner asserted that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a method for protecting useful plants or crop plants against harmful environmental factors and phytotoxic side effects of imidazolinone herbicides using the compound of formula I to receive the expected benefit of protecting the crop plant from excessive weed growth as well as protecting the crop plant from the phytotoxic effects of the imidazolinone herbicide.

The grounds for the present rejection are somewhat confusing, as the Examiner's remarks frequently refer to Walters et al., cited in the previous Office Action, but not the present Office Action. In the previous Office Action, Walters et al. was cited in combination with Senaratna et al. in rejecting the claims as obvious under section 103. This rejection, however, was withdrawn, as indicated at page 2, last paragraph of the present Office Action. The Examiner's comments relating to Walters et al. were therefore not taken into consideration when preparing this response. The claims were rejected over the combination of Senaratna et al. and Bussler et al., and Applicants arguments were appropriately restricted to this combination of references.

Applicants traverse this rejection. A *prima facie* case of obviousness requires the following: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Claim 21 is directed to methods for protecting useful plants or crop plants against phytotoxic side effects of agrochemicals, which comprises applying, as safeners, an effective amount of one or more compounds of the formula (I), as defined in the claim, or salts thereof, before, after or simultaneously with the agrochemicals to the plants, parts of plants, plant seeds or propagation material. Claims 4-5, 7, 10-12, and 22-31 depend directly or indirectly from claim 21.

The Examiner alleged that the claimed methods are *prima facie* obvious over Senaratna et al. because the reference teaches a method for inducing stress tolerance(safener) in plant material comprising applying to the plant material an effective stress-regulating amount of one or more active compounds of formula I of the instant application wherein R1=carboxyl, R2=halogen or hydrogen, R3, R4 and R5= hydrogen or a loweralkyl, and R6=halogen or hydrogen, m, n, and o are each 1, and Z, Z' and Z'' are each oxygen.

Applicants disagree with the Examiner's position on Senaratna et al. As discussed in Applicants' response to the previous Office Action, Senaratna et al. discloses the use of benzoic acid and functional derivatives thereof for inducing stress tolerance in plant material. The compounds of Formula I representing the benzoic acid derivatives may generally be substituted at the phenyl ring by one or more substituents. Any of the values given for R₁-R₅ can be present at any of the five positions around the phenyl ring. While some of the compounds of Formula I according to the present invention fall within the general formula of Senaratna et al., the substitution pattern of the phenyl ring is not found in the specific examples of Senaratna et al, which disclose only benzoic acid, salicylic acid, 5-sulfosalicylic acid, and acetylsalicylic acid. Such compounds do not fall within the scope of the compounds of Formula I as recited in claim 21. There is no suggestion or guidance in Senaratna et al. for selecting compounds having the substitution pattern of the phenyl ring of the compounds in the claimed methods. Senaratna et al. discloses at page 6, lines 1-6 that the compounds of Formula I can be used to induce tolerance to drought, desiccation, drought, temperature, salinity, post transplant stress, post harvest weight loss, post harvest multiple stress and herbicide tolerance.

The Examiner's remarks also appear to equate inductors of stress tolerance with safeners. The two are not the same. Herbicide safeners selectively protect crop plants from herbicide damage without reducing activity in target weed species. Similar selective effects are present with safeners for fungicides and insecticides. While a safener is a means for providing better tolerance against damage caused by agrochemicals such as herbicides, insecticides, or fungicides (i.e. pest stress), the mode of action may be completely different from an inductor of stress tolerance against drought, heat, cold, or biological stress by pathogens. It is often the case that better tolerance to agrochemicals in crop plants is achieved by a mechanism where the plants are able to metabolize the agrochemicals at an increased rate. The metabolization pathway requires the presence of a compound (agrochemical) to be metabolized. This should not be confused with pathways inducing better tolerance against drought, cold, or biological stress by pathogens, which work when the stress inductor is applied as a single active ingredient to the crop plants. A stress tolerance inductor may be simply an antagonistic substance, but is not suitable to be used for weed control in crops of useful plants because the weeds would be protected from the effect

of the herbicide also. Similar selective effects are desired for other pesticides such as insecticides and fungicides.

Bussler et al. does not remedy the deficiencies of Senaratna et al. Bussler et al. teaches the use of amides of dichloroacetic acid as safeners for imidazolinone-type herbicides. The dichloroacetamide safeners of Bussler et al. are by no means structurally similar to the safeners of Formula I of the present application.

Applicants respectfully submit that a *prima facie* case of obviousness has not been established, and that the present rejection is improper and should be withdrawn. The combination of Senaratna et al. and Bussler et al. does not teach or suggest all of the limitations of claims 4-5, 7, 10-12 and 21-31. There is no disclosure or suggestion in the combined teachings of the cited references of the methods of claims 4-5, 7, 10-12 and 21-31 for protecting useful plants or crop plants against phytotoxic side effects of agrochemicals. Due to the limited number of examples and clear focus of Senaratna et al. on the use of salicylic acid, salicylates and benzoic acid, Senaratna et al. does not teach the same or better properties of other benzoic acid derivatives such as those recited in claim 21, as good safeners for reducing phytotoxic side-effects of agrochemicals on crop plants. As shown in the specification in the Examples at pages 94-100, compounds of Formula I, as defined in claim 21, reduce herbicide damage to crop plants without negatively affecting or substantially reducing the activity of the herbicide against unwanted plants. The dichloroacetamide safeners of Bussler et al. are not structurally similar to the safeners of Formula I of the present application. There is no suggestion or disclosure in Bussler et al. of the compounds of Formula I of the present application. A person skilled in the art would therefore not be motivated to replace the dichloroacetamide safeners of Bussler et al. with the compounds of Senaratna et al., or have a reasonable expectation of success for achieving similar safening effects.

Claims 4-5, 7, 10-12 and 21-31 are not obvious in view of Senaratna et al. and Bussler et al. Withdrawal of this section 103 rejection is respectfully requested.

Application No. 10/810,211
Amendment dated March 18, 2009
After Final Office Action of September 18, 2008

Docket No.: 09879-00043-US

In view of the above, the present application is believed to be in a condition ready for allowance. Reconsideration of the application is respectfully requested and an early Notice of Allowance is earnestly solicited.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 09879-00043-US. A duplicate copy of this paper is enclosed.

Dated: March 18, 2009

Respectfully submitted,

Electronic signature: /Liza D. Hohenschutz/
Liza D. Hohenschutz

Registration No.: 33,712
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P. O. Box 2207
Wilmington, Delaware 19899-2207
(302) 658-9141
(302) 658-5614 (Fax)
Attorney for Applicant